

Title (en)

Method and device for adjusting the frequency of a drive current of an electric motor

Title (de)

Verfahren und Vorrichtung zur Einstellung der Frequenz eines Antriebsstroms eines Elektromotors

Title (fr)

Procédé et dispositif de réglage de la fréquence du courant de commande d'un moteur électrique

Publication

**EP 2284987 A1 20110216 (EN)**

Application

**EP 09010381 A 20090812**

Priority

EP 09010381 A 20090812

Abstract (en)

A small electric appliance is described which comprises an oscillation-capable mechanism (4), an electric motor (1) to drive the oscillation-capable mechanism (4), wherein the electric motor (1) can be operated with a drive current (10) at a predetermined frequency ( f ), and a device (3) for adjusting the frequency (f) of the drive current of the electric motor (1). Furthermore, a method for adjusting the frequency ( f ) of a drive current (10) of an electric motor is described comprising the following steps of - detecting, at a specified time ( t meas ), in relation to the period of the drive current, an electric variable (20) generated by the electric motor (1) - determining, at the specified measuring time ( t meas ), whether the detected electric variable (20) essentially has a zero-crossing and - changing the frequency ( f ) of the drive current until the detected electric variable (20) essentially has a zero-crossing at the measuring time ( t meas ).

IPC 8 full level

**H02P 25/02** (2006.01); **A61C 17/22** (2006.01)

CPC (source: EP US)

**A61C 17/221** (2013.01 - EP US); **H02P 25/032** (2016.02 - EP US)

Citation (applicant)

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Citation (search report)

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- [A] WO 2004001948 A1 20031231 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
- [A] US 4320448 A 19820316 - OKUDA YUKIO, et al
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- [A] WO 2008053441 A1 20080508 - KONINKL PHILIPS ELECTRONICS NV [NL], et al

Designated contracting state (EPC)

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Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**EP 2284987 A1 20110216**; **EP 2284987 B1 20190206**; CA 2771034 A1 20110217; CA 2771034 C 20150127; CN 102474216 A 20120523; CN 102474216 B 20150325; JP 2013501611 A 20130117; JP 5635094 B2 20141203; US 2011080122 A1 20110407; US 8466638 B2 20130618; WO 2011018730 A1 20110217

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